

REMARKS

Claims 1-17 are all the claims pending in the application.

Initially, Applicant notes that the Examiner has not returned an initialed copy of the SB/08 form submitted with the Information Disclosure Statement (IDS) filed May 18, 2006 or the SB/08 form submitted with the IDS of February 10, 2006. Further, Applicant notes that the Examiner apparently did not initial the first document on the SB/08 Form with the IDS of April 11, 2002.

Accordingly, Applicant kindly requests that the Examiner initial and return the SB/08 forms submitted on May 18, 2006 and May 10, 2006, and further requests that the Examiner confirm that all documents submitted with the IDS of April 11, 2002 have been considered by returning the SB/08 form and initialing next to each document cited therein.

To summarize the Office Action, claims 1-3, 5, 7-9 and 11-17 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Walsh (U.S. Patent No. 6,233,601) and claims 4, 6 and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Walsh in view of the previous cited Smith et al. (U.S. Patent No 6,532,543). Applicant respectfully traverses the outstanding rejections, as set forth in the following.

Claim Rejections - 35 U.S.C. § 102

As noted above, claims 1-3, 5, 7-9 and 11-17 stand rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Walsh. Applicant respectfully traverses and submits that Walsh fails to disclose all the features of these claims, at least for the reasons set forth below.

For instance, claim 1 defines a mobile agent transfer system for portable devices comprising, *inter alia*, a server and a portable device, wherein a mobile agent is transferred between the server and the portable device, the server has a configuration so as to transfer, to the portable device, a *place code* used to implement, on a side of the portable device, *an environment in which the mobile agent is able to be executed* when the mobile agent is transferred from the server to the portable device. Claim 1 further recites the features of the portable device has a configuration so as to implement, on a side of the portable device and *based on the place code transferred from said server*, an environment in which the mobile agent is able to be executed.

Conversely, Walsh relates to a mobile agent in which a “mobile codebase” is constructed that travels with the agent and serves as a repository of code for classes that “facilitates agent operation.” *See* Walsh at col. 2, lines 17-20. Walsh teaches that upon launching of the agent, a launcher specifies a Uniform Resource Locator (URL) that points to a “home codebase”. Thus, if the mobile agent is required to instantiate an object comprising code not in the mobile codebase, the agent can obtain the code via a network request to the home codebase. *See* Walsh at col. 2, lines 23-30.

As further taught by Walsh, each agent includes data 22, code portion 24, sub-objects 26 and an itinerary 28. *See* Walsh at col. 4, lines 11-12 and Fig. 3. Code portion 24 includes the executable code associated with operation of the agent, which includes the “mobile codebase” and a reference pointer (e.g., URL) to the home codebase. *See* Walsh at col. 4, lines 14-16 and

19-22. Sub-objects 26 are taught by Walsh as including code of distinct objects contained within the agent. *See* Walsh at col. 4, lines 17-19.

Walsh teaches that the “itinerary” is a data structure defining agent migration parameters, including a list of destination (e.g., TCP/IP host name of computer on the network on which the agent is designated to migrate) and the name of a method associated with each destination. *See* Walsh at col. 4, lines 36-46. In operation, Walsh teaches that the agent migrates in accordance with the destinations specified in the itinerary, wherein the local copy of the agent is deleted, the agent arrives at the next destination computer and de-serialization and reconstruction of the agent is performed, and execution of the agent initiates on the present destination computer. *See* Walsh at col. 4, line 47 - col. 5, line 37

Thus, Walsh teaches procedures for serializing, transmitting, and reserializing an agent as follows: a serialized agent is transmitted via a network from a first computer to a second computer, and arrives at the second computer (step 38); the serialized agent is deserialized from the network form to a runnable form by assistance of Java/Object Serialization upon arrival (step 40); the agent executes (step 50); the agent manager 30 establishes a network connection to the other agent manager 32 at the next destination, a third computer 14 (step 60); the agent is serialized to a next form (step 62); and the agent manager 30 passes the agent and related travel information to the next destination agent manager 32 (step 64). *See* Walsh at cols. 3-5 and Fig. 5

However, Walsh does not disclose or suggest any “*place*”, which is a platform on which an agent is able to execute, that is *transmitted with the agent* via the network from a server to a portable device in the manner defined by claim 1. The place code is an execution program

having functions to receive and transmit the mobile agent, and to have the mobile agent start, terminate, suspend, and resume execution of a program, calculation processing. Thus, in a conventional mobile agent, such as that of Walsh, the mobile agent can only move to a computer/portable device provided that the computer/portable device has a "place" that can receive the mobile agent and that can provide an environment allowing the mobile agent to run.

Consequently, although Walsh may disclose a mobile agent transfer system with a server and a portable device in which a *mobile agent may be transferred* between the server and the portable device, Walsh does not disclose or suggest a server having a configuration so as to transfer, to the portable device, a *place code* used to implement, on a side of the portable device, an environment in which the mobile agent is able to be executed with the mobile agent is transferred from the server to the portable device, as defined by claim 1. Moreover, Walsh further fails to suggest that the portable device has a configuration, so as to implement, on a side of the portable device and *based on the place code* transferred from the server, an environment in which the mobile agent is able to be executed, as claimed.

Further, none of the data 22, code 24, subobjects 26 and itinerary 28 of Walsh's agent can properly be analogized to the place code of claim 1. Reconsideration and withdrawal of the rejection of claim 1 is therefore requested.

With respect to independent claims 3, 7, 9, 12, 13, 14, 15, and 16, which analogously recite features of the place code, Applicant submits that these claims are allowable for reasons analogous to those discussed above with respect to claim 1. At least for the foregoing reasons, Walsh cannot properly be interpreted to disclose at least the features of the place code, as

claimed. Reconsideration and withdrawal of the rejections of independent claims 3, 7, 9, 12, 13, 14, 15, and 16 is therefore requested.

Dependent claims

As to dependent claims 2, 4-6, 8, 10-11 and 17, Applicant submits that these claims are allowable at least by virtue of their dependency and by virtue of the features recited therein.

However, with respect to dependent claim 2, Applicant submits that claim 2 is allowable because Walsh fails to anticipate the features of this claim for at least the following additional reasons. For instance, claim 2 recites that the place code is used to implement, on the portable device, an agent unarchiving section used to *reconstruct* the mobile agent based on information transmitted from said server, a portable device side calculation processing section to run the mobile agent reconstructed by the agent unarchiving section, and an agent transmitting section used to transmit the mobile agent having completed operations in the portable device side calculation processing section to the server and wherein the portable device has a program control section to implement, on said portable device, the agent unarchiving section, the portable device side calculation processing section, the agent transmitting section *based on the place code transmitted from said server*

The Examiner apparently contends that the “ClassLoader” of Walsh, which is taught as allowing “the executable code for mobile agents to travel with the agent” anticipates all the features of dependent claim 2, which further defines the place code of claim 1. Applicant respectfully disagrees with the Examiner’s characterization of the disclosure of Walsh.

For instance, as described above, the place has functions to receive and transmit the mobile agent, and to have the mobile agent start, terminate, suspend and resume an execution of a program or calculation processing. On the other hand, a ClassLoader, as in Walsh, merely provides a function of importing/loading Java class files. The Classloader is not equivalent to the "place" of the present invention, since the ClassLoader has no functions to receive and transmit the mobile agent, and to have the mobile agent start, terminate, suspend, and resume an execution of a program or calculation processing.

In other words, functions of deserializing a serialized agent from the network form to a runnable form by assistance of Java/Object Serialization upon arrival, of creating a new thread for agent execution (step 42), of checkpoint agent to persistence store before execution (step 44), of indicating agent method in itinerary invoked (step 46), of establishing a network connection to the other agent manager 32 as the next destination, a third computer 14 (step 60), of serializing agent to network form (step 62), and of passing the agent to the next agent manager (step 64) do not suggest the features of claim 2. Rather, in Walsh, the ClassLoader is used only to deserialize a serialized agent from the network to a runnable form by assistance of Java/Object Serialization upon arrival (step 40).

Accordingly, reconsideration and withdrawal of the rejection of claim 2 is respectfully requested. Further, Applicant submits that the above arguments are likewise applicable to dependent claim 17, which depends from apparatus claim 16.

Claim Rejections - 35 U.S.C. § 103

As noted above, claims 4, 6 and 10 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Walsh in view of Smith. Applicant respectfully traverses and submits that these claims are allowable at least by virtue of depending from claims 3 and 9 and by virtue of the features recited therein.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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